4) Select the *Standard* library in the `CalcTestMacros.ods` document and click the **New** button to create a new module. Enter a meaningful name such as `CalcFunctions` and click **OK**. Calc automatically creates a macro named Main and opens the module for editing.

5) Create a macro in the *CalcFunctions* module of the *Standard* library that loads the *AuthorsCalcMacros* library if it is not already loaded, and then calls the implementation function. See Listing 4.

   *Listing 4. Create a new NumberFive function to call the NumberFive_Implementation function*

```
Function NumberFive()
  If NOT BasicLibraries.isLibraryLoaded("AuthorsCalcMacros") Then
    BasicLibraries.LoadLibrary("AuthorsCalcMacros")
  End If
  NumberFive = NumberFive_Implementation()
End Function
```

6) Save, close, and reopen the Calc document. This time, if macros are enabled, the *NumberFive()* function works as expected.

## Passing arguments to a macro

To illustrate a function that accepts arguments, we will write a macro that calculates the sum of its arguments that are positive. It will ignore arguments that are less than zero (see Listing 5).

*Listing 5. PositiveSum calculates the sum of its positive arguments*

```
Function PositiveSum(Optional x)
  Dim TheSum As Double
  Dim iRow As Integer
  Dim iCol As Integer

  TheSum = 0.0
  If NOT IsMissing(x) Then
    If NOT IsArray(x) Then
      If x > 0 Then TheSum = x
    Else
      For iRow = LBound(x, 1) To UBound(x, 1)
        For iCol = LBound(x, 2) To UBound(x, 2)
          If x(iRow, iCol) > 0 Then TheSum = TheSum + x(iRow, iCol)
        Next
      Next
    End If
  End If
  PositiveSum = TheSum
End Function
```

The macro in Listing 5 demonstrates some important techniques:

1) The argument `x` is `Optional`. When an argument is not `Optional` and the function is called without it, Calc outputs a warning message every time the macro is called. If Calc calls the function many times, then the error is displayed many times.

2) The function `IsMissing` checks that an argument was passed before it is used.

3) The function `IsArray` checks to see if the argument is a single value, or an array. For example, `=PositiveSum(7)` or `=PositiveSum(A4)`. In the first case, the number 7 is